

CLAIMS

1. EUO-structural-type zeolite that comprises at least one element X that is selected from among silicon and germanium and at least one element T that is selected from among aluminum, iron, gallium, titanium, vanadium, zirconium, molybdenum, arsenic, antimony, chromium and manganese, characterized in that it contains at least one alkyl quinuclidinium cation in its intracrystalline pores and in that it has an N/X atomic ratio that is higher than 0.065, whereby N represents the nitrogen element.
2. Zeolite according to claim 1, wherein it has an X/T ratio of between 5 and 50.
3. Zeolite according to claim 2, wherein it has an X/T ratio of between 6 and 40.
4. Zeolite according to claim 3, wherein it has an X/T ratio of between 7 and 30.
5. Zeolite according to one of claims 1 to 4, wherein the element X is silicon and the element T is aluminum.
6. Zeolite according to one of claims 1 to 5, wherein the alkyl quinuclidinium cation is the hexyl quinuclidinium of formula $C_7H_{13}N-C_6H_{13}^+$.
7. Process for preparation of an EUO-structural-type zeolite according to one of claims 1 to 6, comprising the mixing in aqueous medium of at least one source of at least one element X that is selected from among silicon and germanium, at least one source of at least one element T that is selected from among aluminum, iron, gallium, titanium, vanadium, zirconium, molybdenum, arsenic, antimony, chromium and manganese and at least one nitrogen-containing organic structuring agent (Q) that is selected from among the alkyl

quinuclidinium derivatives and the precursors corresponding to said derivatives.

8. Process according to claim 7, wherein it is carried out in the presence of nuclei (S) of at least one EUO-structural-type zeolitic material.
9. Process according to claim 7 or 8, wherein at least one alkaline metal salt or ammonium salt (P) is introduced.
10. Process according to one of claims 7 to 9, wherein the nuclei are introduced after homogenization at least in part of the aqueous mixture that contains the sources of elements X and T and said organic structuring agent.
11. Process according to one of claims 7 to 10, wherein during the synthesis, the reaction mixture has the following composition, expressed in oxide form:

$\text{XO}_2/\text{T}_2\text{O}_3$ (mol/mol)	10-100
OH^-/XO_2 (mol/mol)	0.002 to 2.0
Q/XO_2 (mol/mol)	0.002 to 2.0
$\text{Q}/(\text{M}^+ + \text{Q})$ (mol/mol)	0.1 to 1.0
$\text{H}_2\text{O}/\text{XO}_2$ (mol/mol)	1 to 500
P/XO_2 (mol/mol)	0 to 5
S/XO_2 (g/g)	0 to 0.1
12. Process according to one of claims 7 to 11, wherein the element X is silicon and the element T is aluminum.
13. Process according to one of claims 7 to 12, wherein a final calcination stage is carried out.

14. Use of the zeolite according to one of claims 1 to 6 or prepared according to the process of one of claims 7 to 12 as an acidic solid in a reaction for hydroisomerization of n-heptane after calcination of said zeolite.